

## United States Pa

3,907,403

Maeda

ept. 23, 1975

- [54] **FIBRE-OPTICS FACEPLATE OBSERVABLE WITH HIGH-INTENSITY AMBIENT ILLUMINATION** 2,612,612 9/1952 Szegho et al. 350/276 R X  
3,253,500 5/1966 Hicks 350/96 B

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[21] Appl. No.: **480,364**

[57] **ABSTRACT**

**Related U.S. Application Data**

- [63] Continuation-in-part of Ser. No. 286,263, Sept. 5, 1972, abandoned, which is a continuation of Ser. No. 56,894, July 21, 1970, abandoned.

A fibre-optics faceplate for displaying an optical image of high image contrast that is suitable for visual observation under high-intensity ambient illumination. The faceplate is a bundle of side-by-side optical fibres, each having a core with a low numerical aperture of below about 0.4, cladding therearound having an index of refraction less than that of the core, and a light-absorbent glass layer around the cladding. The outer surface of the bundle is roughened and has a coating thereon with an index of refraction less than that of the cores. The inner surface has a fluorescent material thereon for emitting optical signals by application thereto of electrical signals.

[30] **Foreign Application Priority Data**

July 28, 1969 Japan..... 44-60684

[52] U.S. Cl. .... 350/96 B; 350/276 R; 313/372

[51] Int. Cl.<sup>2</sup> ..... G02B 5/16

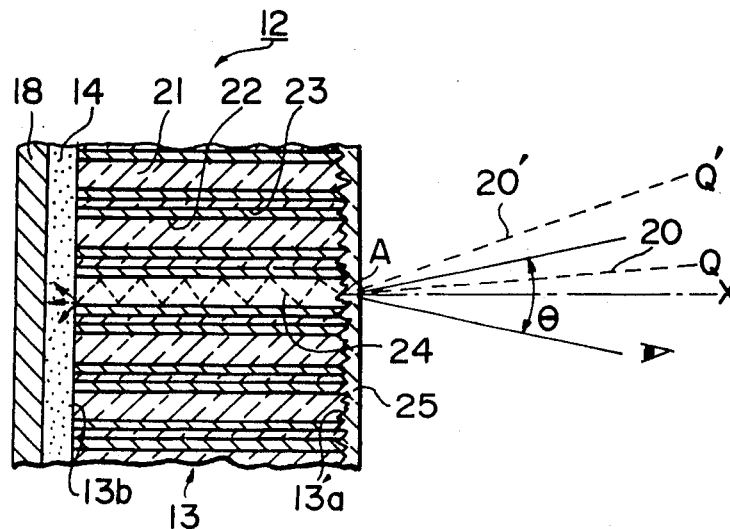
[58] Field of Search ..... 350/96 B, 276 R, 164, 165, 350/188; 313/372, 475

[56] **References Cited**

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2,364,369 12/1944 Jelley et al. .... 350/164 X

**3 Claims, 4 Drawing Figures**



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